

V.—THE NATURAL HISTORY OF MONEY, BY PROF. J. DAVIDSON,
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(Read May 14th, 1900).

It is hardly possible to determine whether there ever was a time in the history of the race when each individual was self-sufficient, and, like the Homeric Cyclops, paid no regard to others. Some of the Australian tribes are so low in the scale of civilization that even barter is unknown amongst them, but whether these represent the universal primitive type cannot be determined one way or the other. It is evident, however, wherever we find the first germs of social life, we find, at the same time, a kind of rude division of labor which necessitates, and renders possible, the beginnings of trade. Trade in its origin is simply barter, the direct exchange of one article for another. But barter, however simple in appearance, is more complicated than modern exchange. It must often have happened in the early history of trade that two parties failed to make a trade for the simple reason that, while both were anxious to give what they had, in exchange for what they wanted, neither of them needed or desired what the other had to offer. This lack of coincidence has frequently placed travellers in very great straits. If the native who holds the store of food does not find in articles which the explorer displays to catch the aboriginal fancy, something which attracts him, he passes on, and the traveller and his party have to go hungry. Sir R. Burton warns the would-be explorer against assuming that any sort of trinkets will suffice for the purchase of supplies and the hiring of labor. The African native has his own standard of taste, and no matter how gaudy and how ginerack the stock of Brummagem goods displayed may be, the native will take such things only as agree with his standard of taste. Nothing will induce the primitive savage to take what he does not immediately require in exchange for the food the traveller desires.

unless the articles offered in exchange conform to his standard of taste.

The inconveniences of this primitive state of barter are so evident that no race or tribe which has made the first step away from barbarism, can for long remain without some sort of medium of exchange. There is need of some commodity which will be readily received by every one, although at the moment he may not wish to consume it, in the full assurance that he can easily, in his turn, exchange it for the article he does desire. Such an interposed commodity will greatly facilitate exchanges, and to all intents and purposes may be regarded as money. What this interposed commodity is depends almost entirely on circumstances. At first, almost any commodity which is esteemed by everybody in the community will serve the purpose. There is no more foundation for the idea that there was a sort of social contract regarding some one article to be used as a medium of exchange than there is for the other historical fiction that law and language are due to a primitive contract or convention. No one article has been adopted as if by natural right. The original medium of exchange was simply a marketable article with a recognized value. Metallic money has reached its present supremacy because in the struggle for existence it has demonstrated its superiority. There is no natural desire for the precious metals ; and even for gold there does not seem to be any natural and inherent desire apart from its utility. The *sacra fames auri* is a fiction of the poet and a description of the civilized mind ; and the first discover of a gold nugget possibly viewed it as a sort of substitute for a bead or a shell for a necklace. Even to this day, there are peoples who do not esteem gold, and will give nothing for it. The various British and Egyptian Soudan expeditions were compelled to take along with them bulky Maria Theresa dollars, because the Arab would not take gold in exchange. The taste of the Arab is for silver ornaments. He is no fanatical silver man desirous of seeing silver remonetised. Gold he could not, or at least was not accustomed to, use as ornaments for his person, his horse, or his

weapons. Hence, gold had little utility for him, and the transport service was burdened with large quantities of bulky Austrian silver dollars. There are certain qualities which civilized communities require in the medium of exchange; but in early commerce these were not always demanded, perhaps often not even thought of. Each community has selected the commodity which best suits its conditions, and in the course of progress each has adopted and in time abandoned many kinds of money. But whatever the nature of the medium of exchange adopted, it served as money; and it is justly entitled to be called money, even although not metallic, or not coined; for, after all, as Prof. Walker says, "Money is that money does." For the needs of modern trade, primitive money materials are entirely unsuited; but they serve their own purpose, and as in the eyes of an early missionary to the Mexicans who, contemplating the bags of cocoanuts used by the Aztecs, exclaimed, "Blessed money! which exempts its possessors from avarice since it can not be long hoarded or hidden under ground," primitive money may have peculiar advantages of its own!

When in any district or community any particular commodity comes into general use, and is readily available, it generally comes in time to be unit of value and the medium of exchange. Its nature will, of course, depend on the climate and geographical position of the district; and may be changed when the community advances to another stage of culture. The natural medium of exchange may be altered, even although the community has made no such advance. When a primitive community comes into commercial contact with a more advanced race, an entirely new medium of exchange may be adopted. Thus, gin and gunpowder are, according to Bishop Tugwell, of Uganda, to all intents and purposes, the only currency in certain parts of Africa. The foreign trader may create a new value by his demand for produce which hitherto has been little esteemed. In the Caroline Islands stone money in the form of quartz wheels, varying from six inches to twelve in diameter, was formerly the money the natives used; but since the advent of

the white trader bags of copra or dried cocoanut kernel have come into general use.* The usual effect of such a contact of races has been the substitution of a corresponding manufactured article for the original commodity used by the natives. Thus, among the Pacific Coast Indians, blankets have become the medium of exchange in place of furs. Since all exchange is mutual, the civilized trader must abandon his natural medium of exchange and adopt the medium of exchange prescribed by the character of the trade. Thus, in the New England colonies, wampum, a form of shell money, and in French Canada, beaver skins, were used naturally in the trade with the Indians at all times; and on occasion, owing to the scarcity in the colonies of small change, these articles were used as money between Europeans. Indeed, in many communities where money, as we know it, is, for one reason or other, scarce, commodities may come into use as money, not because the people know no better, but because they have no better. Thus, on the north-east coast of Newfoundland at this day, cod alone is currency.†

The natural currency of a community is that commodity in which its wealth mainly consists. In the hunting stage of society property consists in weapons of war and the chase, in a few simple, natural ornaments made of shells or teeth, and in the skins of animals, which serve for clothing, and for the covering of the hut or wigwam. But as man advances in civilization, he succeeds in taming animals, whose flesh and milk form his foods, whose skins or wool form his clothing. This is the pastoral stage in which a man's wealth is reckoned by his herds. In the more settled agricultural stage, property consists not only of slaves and domesticated animals, but of dwellings and grain, and above all, of stocks of the precious and other metals, though indeed, in early history, all metals are precious. These later forms of wealth man has come to value according to his earlier standards of wealth; and there is every reason to believe that the original standards of value of metallic coins are based on mere primitive ox and cow units. When man has come into

*F. W. Christian. Geographical Journal, Feb., 1890.

†Lant: Cruising on the French shore Westminster Review, March, 1890.

the possession of the metals, and has acquired the power of working them, a long course of monetary development is possible for him. He finds out by experience which metal suits his purpose best; and that purpose may change as the centuries pass. Our present currencies are the result of the law of the survival of the fittest. The primitive condition was general use; and that always remains the first condition of the use of an article as currency. But along with that, there are other conditions which are stated in every monetary text-book. All the metals have been used in turn. Iron was used in Sparta, and is used to-day in the Dark Continent. Lead and tin, and platinum, gold, and silver, and copper, have all been used. But experience has shown that gold and silver pre-eminently, and copper, or some alloy of it, in a less degree, are best suited for currency purposes.

This has been the general course of development; but though it is sometimes hard, amid all the talk about progress to realize that the stationary state of society is the usual phenomenon, yet it is true that most peoples have not become civilized, and since many remain in the most primitive stages of society, we still have many actual instances of primitive currency in present day use. Progress seems alike impossible in the frozen north and in the torrid south; and in these regions the conditions of life are almost unchanged, and there we may see the kinds of money our forefathers of untold generations ago employed.

The rigour of the northern winters prevents the rearing of domestic animals, or the systematic cultivation of the soil, and there the primitive hunting stage still exists. The wealth of these Arctic communities consists in skins, and in some cases of dried fish, which they exchange with the trader from the south for their few luxuries or use for their own clothing and sustenance. Under these conditions skins, or their modern equivalents, form the natural medium of exchange. A writer in a popular magazine gives a graphic description of the skin money used in the Hudson Bay Territories:

"In old times, when an Indian wanted a rifle, the rifle was stood on end, and the Indian laid furs flat on the ground till

they were heaped to the top of the gun barrel ; then the Indian took the rifle, worth possibly \$50, and the Hudson Bay Company took the furs, worth from \$100 to \$1000, the large variation being due to the absence of discrimination on the part of the Indian

"At the Hudson's Bay Company posts, on the Mackenzie River, actual money is unknown ; all trade being conducted by means of a curious imaginary currency, the unit of value of which is 'one skin.' What sort of skin ? No one knows ; in fact it is no sort of skin in particular. It is merely an imaginary skin, about equivalent in value to half a dollar. The hide of a beaver is worth ten skins ; a musk ox hide is worth thirty skins ; a fine silver fox hide is worth 300 skins. These are the big bills of this unique currency.

"Small change is made by musk rat hides, worth one-tenth of a skin ; by mink hides worth two skins, and by lynx hides worth four skins. A wolverine hide is worth sixteen skins. There is a fluctuation in the value of this currency just as there is a fluctuation in the value of silver, consequent upon the increase or decrease in its production."*

But skin currency is not so unique as this writer imagines it to be. We have no modern instance so complete, but we have many traces of the same practice. In Northern Asia the skin of the Siberian squirrel was and is the monetary unit ; and etymology shows that many of the northern nations were in the same position. "In the Estonian language the word *rûtra* generally signifies money, but its equivalent in the kindred Lappish tongue has not yet altogether lost the original meaning of skin or fur."† And the name of a Russian small coin, the $\frac{1}{4}$ kopeck, is said to mean half a hare skin, showing that the Muscovites had originally a skin currency—a fact which is also established‡ by the circulation of leather money in Russia as late as Peter the Great. Even in regions where there were possibilities of development, the earliest money was of this

*Lee Merrithew : "Cosmopolitan," Nov., 1899.

†Jevons : Money and the Mechanism of Exchange, p. 20.

‡Ridgeway : Origin of Currency and Weight Standards, p. 13.

character. "Skin for skin, yea, all that a man hath will he give for his life," is a text we generally understand in some obtuse way to mean a reference to a man's own skin. What it really points to is that, even in the pastoral stage of society which the book of Job describes, skins were the standard of value; and classical writers record the traditions that the earliest currency used in Rome, Sparta, and Carthage, was formed of leather. Sir John Mandeville, or his unacknowledged authority, tells us that in China, when he visited it, leather money was in circulation.

We find what seems a still more modern instance in the fact that Saint Louis, the great king of France, finding a great scarcity of silver coin wherewith to pay his soldiers, caused pieces of silver wire to be fixed on leather and so circulated. But this was rather a device for protecting the silver than an actual leather money. The silver gave the value, and the leather served only as a case to preserve the small piece of silver (9 or 18 grs.) from being lost.

In some communities, particularly those brought into closer contact with the traders of advanced race, the blanket of the trader has supplanted the original skin currency. This has taken place in some parts of the Hudson Bay Company's territory and elsewhere. Along the British Columbia coast also the Indians use blankets as the unit of exchange. The blankets are distinguished by prints or marks on the edge woven into the texture, the best being four-point, the smallest and poorest one point. The unit of value in trade is a single two-and-a-half point blanket, worth about a dollar and a half. All commodities are exchanged according to this standard; even the four-point blanket is said to be worth so many blankets.*

In the case of these Indians the development may have been due to a growing scarcity of fur bearing animals, and perhaps from the same reason, and also from natural development, we find in Scandinavia, in Iceland, and in the Orkney Islands,

*Dawson: Report on the Queen Charlotte Islands. Geol. Survey Report of Canada, 1880.

that cloth was the standard. Wadmail, or coarse woollen cloth formed the basis of an elaborate system of currency in Norway.*

In Iceland this cloth currency gave place with the development of trade to a currency of stockfish. The foreign traders did not desire the northern coarse cloth ; but there was a steady market in Southern Europe for fish. There is extant a proclamation for the regulation of trade between England and Iceland in which an elaborate scale of prices for articles of all kinds is drawn up in terms of dried codfish.† And in Newfoundland cod was for a long time, and still is in many parts, the only coin.

In general, one may say that whenever there arises a scarcity of metallic money in a community which produces one chief article for trade, that article will serve as money. Thus cod was used in Newfoundland, tobacco in Virginia, wheat and maple sugar in Nova Scotia,‡ tenpenny nails, as Adam Smith tells us, in Kirkaldy, olive oil in the Levant, tea in Central Asia, block salt in Abyssinia, and in various parts of Asia and Africa.

The history of the currency experiments of the European colonies in North America is instructive. These communities suffered from a chronic want of coin, one of the results of an ill-considered colonial policy. Tobacco was a form of currency in Virginia sanctioned, not only by custom, but by actual legislation. In 1619, the first General Assembly of the colony established a ratio between tobacco and silver ; and almost every succeeding Assembly dealt with the same question. In 1642, tobacco became the sole legal tender ; and it was not till 1656 that silver could again be used if required. But tobacco remained the actual medium of exchange, and in 1730 paper money, like our modern grain receipts and pig iron warrants, was issued against tobacco. These, along with the commodity, formed the main money in Virginia down to the beginning of the present century, and were preferred, because more stable in value, to the continental currency. In the New England colonies a very great variety of articles of trade was made legal tender.

*Morris and Bax : *Socialism, its Growth and Outcome*, p. 249 n.

†Ridgeway : *op. cit.*, pp. 18, 19.

‡Patterson : *Memoir of the Rev. James MacGregor, D. D.*, p. 82.

Beaver skins formed the greater part of the circulating medium, and in 1631 it was enacted that grain could be paid unless beaver or money (that is metallic money) were called for by the contract. This law remained in force for half a century; and other agricultural commodities were added to the list as occasion seemed to demand. Corn, wheat, barley, and pens, at fixed prices per bushel, were sanctioned by law as currency, and taxes could be paid in them at the discretion of the taxpayer.*

A similar colonial policy produced similar results in French Canada. The scarcity of metallic money was even greater than in the English colonies; and at all times commodity substitutes for metallic coinage were in use. The scarcity was so great that in addition to the beaver skin, which was practically the unit of value, wheat was declared a legal tender in 1669 at four livres the mint, while in 1673 the council further ordered that bear skins could be tendered in payment at their current value.†

But to return to the monetary practice of primitive communities. In the torrid zone clothing is a burden, and nature supplies plenteous store of the food suited to the climate. The chief objects of desire are ornaments. The instinct for personal adornment is one of the most powerful instincts of the race. Shells were the earliest and simplest articles so employed; and we find shell money used in all parts of the world. In the torrid zone they still form the principal medium of exchange. The cowries of the countries round the Indian Ocean have many of the qualities which we require in the money material. They are durable, portable, and are universally esteemed. In India and Siam, in West Africa, as well as in East Africa, and indeed at one time or another in every country in the world on whose shores they are found, cowries serve as the small change of commerce. They are to-day collected in vast quantities in the Maldive and Laccadive islands to be exported to serve as money elsewhere. The value fluctuates enormously, depending on their abundance or scarcity. In Africa traders estimate a

*White: *Money and Banking*, Chap. 1.

†Kingsford: *History of Canada*, Vol. 1, p. 156.

thousand shells at a shilling, while in India 5000 represent a rupee. The area over which they circulate is very large; and we have evidence that they were at one time used in countries which have long since abandoned them. The familiar Chinese cash, which are estimated by the string, is at least part proof that shell money, which is usually strung for convenience sake, was once the currency of the Celestial Empire, although the cash itself is a survivor, not of this shell money, but of an original knife money of which we shall hear later. The money of the Solomon Islands consists of neatly worked pieces of shell about the size of a shirt button. These are strung on strings about four yards long, and are distinguished under the names of white and red money. In the Caroline Islands shell money circulates, not as shells, but as real money, without immediate reference to adornment. The shells are chipped all round till they form disks quarter of an inch in diameter, and then are smoothed down with sand and pumice. The porcelain money of China, and perhaps the clay tablets of Assyria and the seals of Egypt, may be perhaps regarded as more developed forms of the same kind of money. In other places shells of other sorts were used. In early China perhaps, also, among the early Greeks, tortoise shell was used, and in China to this day the phrase tortoise shell is still used to indicate money.*

The wampum of America is another instance of shell currency. It consisted of black and white shells polished and fashioned into beads, and then strung in necklaces, etc. Black ones were twice as valuable as white. Wampum was so well established as currency among the Indians that it was made legal tender among the settlers, not that white men valued it as ornament, but because it was in constant demand by the natives and also because there was a scarcity of small coin. The unit of wampum money was the fathom consisting of three hundred and sixty white beads, and was worth about sixty pence. At first wampum was legal tender only to the extent of 12 pence, or the limit of the legal tender of bronze coin to-day. But in

*Ridgeway: *op. cit.*, p. 21.

1641, owing to a greater scarcity of coin, wampum was made legal tender up to £10, though in 1643 the limit was reduced to £2. The decline of the beaver trade drove it out of circulation. When it could no longer be exchanged in large amounts for beaver skins, an article of international trade, the basis of its value was gone, although its use was continued in the frontier districts well down into the eighteenth century.*

Shell money is still used by North American Indians. The tribes of California, according to Mr. Powers, make use for money not only of the red scalps of woodpeckers, but also "of the dentalium shell, of which they grind off the top and string it on strings; the shortest pieces are worth twenty-five cents, the longest about two dollars, the value rising rapidly with the length. The strings are usually about as long as a man's arm." When these Indians became familiar with the silver coinage of the United States, the use to which they put the dimes and quarters shows how the new money, as well as the old, derived its value as a medium of exchange, because it was prized as an adornment of the person. "Some of the young bloods array their Dulcineas for the dance with lavish adornments, hanging on their dress 30, 40, or 50 dollars worth of dimes, quarter dollars, and half dollars, arranged in strings."† The same aboriginal instinct appears sometimes among semi-civilized aldermen. The Bowery saloon, which was paved with silver dollars, used to be, and perhaps still is, one of the sights of New York; and it would not have been inappropriate had Silver Dollar Smith, the owner, been a member of Tammany, which in the day of its political power, still tricks its members out in paint and feathers on gala days and sends them down Third Avenue under their Sachems, brandishing tobacco store tomahawks.

Other articles which have been desired for purposes of ornament have also been used as money. The Californian Indians use not only shells, but the red scalps of woodpeckers for their

*White: *Money and Banking*, Chap. 1.

†Quoted Ridgeway, *op. cit.*, p. 15. Conversely solid brass buttons with the eye hammered flat were extensively used half a century ago in St. John, New Brunswick, for small change.

greater units of value. In Fiji, whales' teeth were used instead of shells, and white teeth were exchanged for red teeth somewhat in the ratio of shillings to sovereigns.* In Africa ivory tusks, and in the Solomon Islands dog teeth, which are worn in necklaces, express the higher values, while shells are used for the smaller. The currency of the Solomon Islands includes many different articles, and the value of each relatively to the others is carefully determined. The currency table, as set forth by Mr. Cook,† is :

10 cocoanuts	= 1 string of white money.
10 strings of white money	= 1 string of red money, or = 1 dog tooth.
10 strings of red money	= 1 string dolphins' teeth.
10 strings of dolphins' teeth	= 1 fine wou'an.
1 mable ring (for ornament)	= 1 good hog or 1 useful young man.

When man becomes a worker in metals, the primitive shell ornaments are replaced by gold and copper, and silver; and much of the money used in Africa to-day is of this character.

But man is a creature of customs, and the forms of his necklaces did not change to utilize the peculiar characteristics of the new materials. Nuggets of native gold may have been here and there threaded on a string; but there is little doubt that man's first attempt in metal working consisted in imitating the old shell ornaments, and in imitating those shell ornaments which had come to be used as money. In Siam there are silver coins in the shape of shells; and in China we have a copper coin known as a Dragon's eye, which was fashioned in the shape of a cowry. But long before the precious metals were coined, they were in circulation by weight, as they still are in the East. The commonest form in which the metals circulated was in the

*Jevons: *Money*, p. 25.

†For these details regarding the Solomon Islands, I am indebted to a note in an issue of the "Popular Science Monthly," which I cannot find again. In the same note it is said that rope ends, ornamented with red feathers, to be worn about the waist, are also used as money.

shape of ornaments ; and some writers have spoken familiarly of ring money as if it were really stamped and coined money such as we use to-day. In reality, the so-called ring money was an article of barter, circulating by weight. The ancient ring money of Egypt, and of the early Celts and Teutons, is represented in Africa to-day by the coin currency of Calabar, and the rod currency of the Congo region, these being simply brass or copper wire, soft enough to be bent into the rings and bracelets, and other ornaments in which the African black takes delight.

When man advances to the pastoral stage, which he has done, and apparently can do, only in the temperate climes in which cattle can live, we find him estimating his wealth in cattle ; and naturally the medium of exchange adopted by such societies is that which all desire, and all in a measure possess. Most of the civilized nations have long since left their cattle currencies centuries behind ; but still in their language and archæological remains, in their literatures and their religious customs, there survive traces of the days when cattle formed their standard of value and their medium of exchange. "It is very possible that kine were first exclusively valued for their flesh and milk ; but it is clear that in very early times a distinct and special importance belonged to them as the instrument or medium of exchange."*

The Latin term "pecunia" is derived from "pecus," a herd ; the English "fee" is from the Anglo-Saxon "feoh," which survives in the cognate German from *Vieh* cattle ; and rupee is said to be derived from the Sanskrit *rupa*, which also means cattle ; and in the Book of Job the word *Kēsitch* (= a lamb) is employed to signify a piece of money.†

The veneration in which the cow is held in modern India by a people to whom the eating of beef is an abomination, is held by some to point back to the ages when the ancestors of these people in some more northern region had a great respect for

*Maine : The Early History of Institutions, p. 149.

†Wilkinson ; The Ancient Egyptians, Vol. II., p. 151.

cattle as forming the principal item in their wealth. And although every shepherd was an abomination to the Egyptians (Genesis, c. 46, v. 34), as Joseph instructed his brethren, yet the Egyptians worshipped their great divinity Apis under the form of a bull, and worshipped also a sacred ram; customs which probably show that at some time or other their ancestors, whether in the northern Soudan or in Asia, and still in the pastoral stage, had regarded with proper veneration the cattle and the sheep which constituted their wealth.

The earliest literatures both of Aryans and of Semites show that cattle were wealth, and the measure of wealth and the medium of exchange. The wealth of the Patriarchs was measured by their flocks and herds, and we need only refer, in the almost equally familiar stories in Homer, to the one-sided exchange between Glaucon and Diomede "of golden arms for brazen, those worth one hundred oxen for those worth nine." When history opens, most of the nations which afterwards played leading parts were still in the pastoral stage. Egypt had already passed beyond it, and the Greeks were making the transition to the agricultural and settled conditions of life. And as each nation first demands our notice whether in the Mediterranean region, in northern Europe, or in Central Asia, it is almost always the same picture that is presented of a pastoral people whose wealth consists in flocks and herds. And not only have we *a priori* reason to suppose that the chief item of their wealth formed their rudimentary medium of exchange; but we know from literature and from archæology that the ox was their unit of value. We have scales of value preserved to us in the Sacred Books of the East; and of these scales we have what might be almost exact transcripts among the semi-civilized tribes of the Caucasus and Central Asia, and of Northern and Southern Africa at the present day. The earliest coins of Greece which have been discovered are stamped with the head of an ox; and the legal code of Draco retains with true legal conservatism the otherwise obsolete practice of expressing values in terms of oxen. Indeed there is more than probability, there

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is proof as strong as the nature of the subject permits, that our present system of metallic coins are translations of the earlier cattle currency. The Greek talent of gold and the ox were undoubtedly equivalent; and the ox is of course the older standard of the two; and the small change of this commodity currency was likewise translated into corresponding silver and copper coins. We find the same equating, the presence of which we partly detect and partly infer in the Greek world, going on to-day among peoples which are just passing from the pastoral to the settled mode of life.

When this change takes place man generally has some rudimentary knowledge of metallurgy; and the agricultural products have not often formed a unit of value. We have local instances and temporary instances; but these are by no means confined to the beginnings of the agricultural stage. They appear in colonial history almost as frequently as in semi-barbarous societies; and are generally due, then and now, to a scarcity of precious metals. Wheat has some advantages as a standard of value over the precious metals, as those colleges at Oxford and Cambridge know to their advantage who were restricted in the reign of Elizabeth to corn rents; but as a medium of exchange agricultural produce has such obvious disadvantages that no people which was able to use the precious metals has ever systematically used grain and other produce of the earth.

The metals are so much better suited than any other commodities to serve as the medium of exchange that it was inevitable that they should rapidly supplant all other forms of currency, so soon as gold and silver and the others had come to possess the fundamental requisite in a medium of exchange, viz., that it should be an article in general use and demand. But the metals came but slowly to possess this fundamental requisite; and we are certainly not justified in assuming that metallic currency superseded all others as soon as man had discovered the means of mining and working the metals. On the contrary, it is certain that the older currencies remained in circulation long

after man had acquired the necessary metallurgical knowledge. In the Homeric poems we have evidence of the concurrent use of definite weights of gold and silver, and iron, with the older ox unit.

The metals acquire value as all other articles acquire value, because they are suited to satisfy certain human needs. After the metals have been adopted as money, they acquire a distinct and special importance because of their utility as the medium of exchange; but first of all they must acquire the direct value that arises from direct utility. The metals are valued by man chiefly as ornaments, or as the material out of which the implements of industry or the weapons of war may be fashioned. The precious metals are valued for their utility as ornaments only. Neither gold nor silver had been put to serious use either in war or in industry. They obtained their value because of their attractiveness as ornaments for adorning the person, and in all probability the earliest form in which gold circulated was in strings of nuggets or beads resembling the older shell necklaces. Ancient geographers tell us that in Arabia native nuggets were used as ornaments. "Having perforated these they pass a thread of flax through them in alternation with transparent stones and make themselves chains, and put them round their necks and wrists."* But with increasing knowledge of how to work the metals, gold dust, as well as "fireless gold," as these Arabian natives called it, was fashioned into ornaments, and at first, no doubt, after the older models. Primitive coins are in existence, and in some cases still in circulation, in which the evolution from the ring and shell can be traced.

As man's chief employment in the early stages of society was war and the chase, weapons of war were greatly prized and jealously guarded. Consequently we find many traces of the employment of the implements of war as a medium of exchange. Even in the stone age we know that this was the case. Tough green stone slabs, valuable for making hatchets, form the unit of value among the lowest Australian natives who have hardly yet

*Strabo and Diodorus Siculus, quoted Ridgeway, op. cit., pp. 75-77.

advanced far enough to carry on trade by means of barter.* Weapons formed part of the currency of Homeric times and among the ancient Norsemen. By the laws of Hakon the Good penalties for breaches of the law could be paid among other things in weapons.† Gunpowder competes with gin in the battle of the African standards introduced by European traders; and, not long since, an English newspaper, in commenting on a petition of a philanthropic committee that some other form of currency than that of gin should be adopted in the Delta of the Niger, suggested more than half seriously that Lord Salisbury should use his influence with the concert of Europe "to make the Liverpool powder keg the only legal tender in the gin latitudes." Among all the aboriginal tribes which have been brought into contact with European traders, the musket quietly takes its place in the native standard of value. But in Borneo they have gone a step further. A brass cannon, or as it is called by the natives, a brass gun, is the standard of value, and in all parts of the island one may still hear prices reckoned in brass guns. Any one who has transactions of such importance, for the brass guns will correspond to our larger notes, will instantly translate the sum into dollars at the present day; but there was a time when ten or twenty pounders did actually pass from hand to hand.‡

In more recent times, and if not among ourselves, at least among the ancestors of many of us, bullets have circulated as small change. Leaden bullets were legal tender in the New England; and the reason was no doubt partly the atmosphere of warfare and danger in which the early colonists lived. But there was another reason. The want of small coin in the reign of Queen Elizabeth had induced tradesmen and others to issue token money; and in consequence there was great distress often among the poorer classes for the issuer not infrequently refused

*Tyler: Anthropology, p. 281.

†Ridgeway: op. cit., p. 35.

‡This fact is on the authority of an undated second-hand clipping from the "London Standard."

to honor these tokens. Accordingly, in the reign of James I., the striking of copper farthings was made a monopoly, and in the spirit of the times given to a court favorite, Lord John Harrington, who took unreasonable advantage of his opportunities. The circulation was encouraged in various ways with disastrous results to the commerce of the country. But not content with the fraudulent profits made at the expense of the commerce of the country, he caused large parcels to be shipped to the colonies. The Pilgrim Fathers, however, would have none of them; and it stands in the records of Massachusetts on "March 4th, 1634, at the General Court at New Town, brass (or copper) fathings were forbidden, and bullets were made to pass for farthings."

But the useful metals could also be put to the more fruitful use of serving as implements of industry, where their superiority over stone and wood is no less obvious than when they are fashioned into weapons of war. In Africa, which, owing to the absence of native copper, never had a bronze age, but passed at once into the iron age, we find still in full force the systems of currency which have either completely disappeared, or have left but indistinct traces elsewhere. There we find hoe money and axe money in practically their original forms. Iron in its natural state was a means of exchange in the Homeric age, and the iron money of Sparta was probably traditional in origin, like the Hindu reverence for the cow. But in Africa to-day iron is an almost universal medium of exchange. On the west coast the bar is the unit; and all things are reckoned in "bars" pretty much as they are reckoned in blankets among the Pacific Coast Indians. Originally the bar was what its name denotes, a bar of iron of fixed dimensions, one of the chief articles of trade between the natives and the early European traders. Now it has a conventional value, which, in Sierra Leone, is two shillings and threepence. In Central Africa, among the Madis, according to Dr. Felkin, "the nearest approach to money is seen in the flat round pieces of iron which are of different sizes They are much employed in exchange. This is the form in

which they are kept and used as money, but they are intended to be divided into two, heated and made into hoes. Ready made hoes are not often used in barter. Iron, as above mentioned, is preferred, and is taken to the blacksmith to be fashioned according to the owner's requirements.* But in Darfur the actual hoe serves as currency. "It is simply a plate of iron fitted with a socket. A handle is fitted into this socket and one has an implement suited for chopping the weeds in the corn fields. Purchases of small value are made with the hoe from one to twenty,"† which may be said to be its legal tender limit. Larger purchases are made by means of cotton cloth and oxen. Among the wild tribes of Annam, in Asia, also, the hoe serves as currency, and in ancient times many nations seem to have used it. We know that the Chinese had originally a barter currency of real hoes and real knives, articles in great demand among them. These in time became conventionalised in form, and were reduced in size to serve as real money. The Chinese cash is the survival of the original knife money, while the hoe, in a certain form, still circulates in Thibet, as it did in China hundreds of years ago. Within recent years the Thibetans have adopted the Indian rupee; but have not preserved its integral form. They cut it up for purposes of small change into little pieces which represent the conventionalized form of their own original hoe currency.

The hoe served as a general article of barter because of its indispensability in agriculture; but among fishermen the fish-hook was a more useful and desirable implement. Among the fishermen of the Persian Gulf, and round the coast to Ceylon and the Maldive Islands, there was originally a fish-hook currency; and when true money was adopted the old form was retained. Down till the beginning of the present century *larins*, a bent piece of silver wire, the conventionalized form of the fish-hook, were in circulation; and it is possible that, had the natural process of evolution gone on without interference from

*Quoted Ridgeway, op. cit., p. 43.

†Ridgeway, op. cit., p. 45.

the outside, in course of time the piece of double wire would have become a bullet-shaped piece of metal, just as the bullet coins of Siam struck in European fashion represent the last stage of the original ring currency of that country.*

At one time axes served as money in many countries. At first it was the actual implement or weapon itself; but in time a conventionalized form was adopted. In West Africa to-day almost the sole currency in many districts has the form of an axe. These are too small now to be actually used, either as weapons of war or as implements of industry; but the shape has been preserved unchanged, and it is evident that the days are not long past when a currency of actual axes was employed.

We have evidence from archæology and from literature of a similar usage among the Greeks. There seems to be little ground for doubting that the earliest coins were imitations in metal of the older article which the metallic currency replaced. Thus, the coins of many Greek states and cities bear on their faces evidence of the nature of the commodity currency they replaced. When the coins were for circulation among a purely Greek people, there could be no difficulty in passing at once from the commodity to a piece of metal stamped with the image of the article whose value the coin represented. For instance, the Greeks of Cyzicus stamped their coins with the image of a tunny fish which was probably a part of their commodity currency at an earlier date; and these coins are, in most respects, like modern coins. But, in Olbia, a Greek colony on the Black Sea, where the Greeks traded with the barbarians, and the population moreover was of mixed race, the tunny fish was also the chief article of trade. There it was found necessary to make a concession to the lower level of intelligence of those with whom they traded, and perhaps also of many of their own citizens; and consequently a coin in the actual shape of a tunny fish was struck to represent the probable original commodity currency. In the same way the axe appears on the coins of

*Del Mar: *A History of Money in Ancient Countries*, p. 109.

Tenedos, and there is more than probability that just as the tunny fish coin of Cyzicus represented the earlier form so the axe stamped coins of Tenedos represented an earlier axe currency. We know from the Iliad that axes were given along with oxen, slaves, kettles, etc., as prizes in the funeral games for Patroclus. "But he (Achilles) set for the archers dark iron, and he set down ten axes and ten half axes," Iliad XXIII., ll. 850-1; where the half axe is obviously the single headed axe. The earliest coins of the Island of Tenedos, which lies off the Troad, bear the device of the double headed axe and represent an original axe currency such as we find in Africa to-day.

While the ox undoubtedly formed the unit of value and a medium of exchange over the whole of the wide area from the Straits of Dover to the Himalayas, as indeed in every other region where it can flourish, it was nowhere the sole medium of exchange. In almost every region of which we have any information, there is, or was, a regular scale of value in which the ox was simply the chief unit. Some writers have tried to show that the ox was unsuited for currency purposes, because it was incapable, without the adoption of the Seythian practice of cutting steaks from the flanks of the living animal, or the Celtic practice of bleeding the cattle to make the unleavened bread more nutritious, of sub-division to transact the smaller exchanges; and that their use must quickly on that account have been abandoned. Cattle were unsuitable in many ways, though they had considerable stability and uniformity of value throughout their continental range; but the reason their use as money was given up was not their lack of divisibility, for, as we have said, they never formed more than the principal article in a carefully constructed scale of exchange values.

To this day in the Soudan we find, that while the ox is almost universally the standard of value and the medium of exchange for more valuable articles, each particular district has its own peculiar lower units, generally selected from the articles most in

*For this and the other instances from the Greek coinage which follow, and for many others from which these are selected, see Ridgeway, *op. cit.*, Ch. XII.

demand in the district, or from those which the district has special facilities for producing. In one place it is sticks of salt, in another tobacco, in another cotton thread, in another raw cotton in the pod, in another onions, in another hoes, in another copper rings, beads, shells, etc., and in most districts more than one of them. These are for small change, so to speak. But all of them are recognized submultiples of the standard unit, the ox, as our quarters and ten cent pieces are of the dollar; and in the same way, slaves are in many districts there now, as they were in Homeric times, the larger currency, being recognized multiples of the standard ox.

From Greek coins which have been preserved, it is inferred that the Greeks had the same system. There are traces of it not only in Homer, but on the silver coins themselves. With the introduction of metallic currency, the Greeks equaled the ox with the gold talent, while its submultiples were represented by corresponding silver coins. At first, at least, these silver coins often bore as their stamp the representation of the commodity currency with which they were equaled and which they displaced. In many cases no doubt the image and superscription were religious; but there is no reasonable ground for doubting that in their origin many, perhaps all, of these coins bore on their face the evidence of the particular commodity they had displaced as currency. In some cases the representation was carried so far that the coin reproduced the actual shape of the commodity; and even where the stamp on the coin is of a religious character, there is a striking resemblance between the stamp and the article for which the district was famous. In many cases this correspondence is so clear that it is impossible otherwise to explain the peculiar form and image of the coin.

Thasos, for instance, was famous for its wine; and the wine cup or measure appears on its early coins. The unit of capacity, in the case of wine was the measure, and the measure is stamped on the coins to express the fact that this silver coin, bore the same relation to the gold talent as the actual measure of wine

bore to the original ox unit with which the gold talent had been equaled. The olive, again, was the most important product of Attica, and was probably, as it still actually is in many of the countries bordering on the Mediterranean, whether in the shape of olives or of olive oil, an actual medium of exchange; and the silver coins of Attica which replaced this olive currency most appropriately bore the olive sprig. The cuttle fish was an esteemed dainty by the Greeks, as it is to this day in Naples, and also along the Levant; and the coins of Croton bore its image. The ear of wheat appears on the coins of Metaportum, which grew wealthy because of the agricultural resources of Magna Græcia.

Before the invention or discovery of the art of pottery, man made use of natural shells, and many of the Greek names for earthenware vessels are the names of sea shells. Even after earthenware and wood had replaced these primitive and natural utensils, vessels were fashioned, as can be seen in the museums of antiquities to-day, in the old shapes. Thus there are Greek vases in the British Museum which reproduce the shape of the tortoise, and in the South Sea Islands to this day the natives imitate the tortoise shell in wood and earthenware. The tortoise shell was always specially valued, and in China it was used, and perhaps is still used, to make bowls of great beauty. It is to be expected that we should find, as we do, the tortoise shell standing at the top of the ancient Chinese scale of values. Among the Greeks and other Mediterranean peoples it was also valued; and it was the principal article with which the citizens of Aegina carried on their trade with the Phoenicians. It naturally, therefore, was a unit in their scale, and when the shell and commodity currency was replaced among them, as among the other Greek peoples, by silver coins, they stamped their silver coin with the image of the tortoise. And they took pains to make the coin actually represent the tortoise, for it has a high round upper side with a flat under side and markings to indicate the shell. The scarabs of Egypt, pieces of baked clay or porcelain, cut or moulded in the shape of beetles and tortoises, were in all proba-

bility used as money and represent an earlier shell, probably tortoise shell currency.*

In time the mercantile significance of these symbols was forgotten, and a religious interpretation placed on them. But even in the peculiar deities of a district we may often trace the history of its early commerce; and the religious symbolism of the later coins does not contradict the mercantile significance of the images on the early ones. Early peoples, and later ones, very easily discover grandiose explanations for what in their origin are commonplace facts. To take but one instance. The famous iron money of Sparta, which, according to tradition, Lycurgus caused to be dipped in vinegar while red hot to render it worthless as a commodity, thus to restrain the cupidity of the citizen soldiers, was in all probability not adopted from any ascetic motive. The current explanation was, without doubt, an aetiological myth, a grandiose explanation long after the commonplace event. The iron money was the survival of a time when iron was a favorite article of exchange, as it was in the Homeric age, and as it still is, as we have seen, in Africa to-day. But the Spartans were a very conservative people, and clung to their primitive money long after the superiority of other metals for coinage had been demonstrated by experience; and long after the real origin of their money had been forgotten. To explain their own backwardness, they gave, as so many other peoples have given, a religious and moral sanction to their own lack of progressiveness.†

After the introduction of metallic money there was room for a long process of development. Man had still to determine which of the metals was the most suitable for his purposes; and the actual selection which civilized man has made is the result of the survival of the fittest. There are certain qualities which we have come to look for in money, qualities which all metals seem to possess in a greater degree than any one substance, but qualities which all metals do not possess in the same

*Del Mar: *op. cit.*, p. 147.

†Enc. Brit., *Art. Money*.

degree. These are Utility, Portability, Indestructibility, Homogeneity, Divisibility, Stability of Value, Cognizability. These qualities are possessed in an especial degree by gold and silver, and in a less degree by copper. Iron was used, and is still used in many regions; but it is not the best money material because of its cheapness. It does not contain great value in small bulk, and it is not indestructible. Lead was used in classical times, and is still current in Burmah, but it is too soft to be made into good coins which will retain their stamp and be always cognizable. Tin was early adopted as a money material. It was coined by Dionysius, of Syracuse, who was the first to use it of whom we can speak with certainty; and it has remained in use as a money material ever since. In 1680, Charles II. issued tin farthings, and his example was followed by William and Mary in 1690; and it was employed in Java, Mexico, and elsewhere. But it has the defect of being too soft. Copper, either pure or in alloy, has been extensively employed, and it possesses almost all the qualities requisite, except that it does not contain great value in small bulk, and has comparatively little stability of value. Platinum is in many respects suited for currency purposes, but it is in but slight demand, and the stock on hand is very small. Consequently any change in the demand is apt to cause great fluctuations in value. Russia, which owns platinum mines in the Ural Mountains, began to coin it in 1828, but abandoned the experiment in 1845, because of the cost of striking coins. Nickel has been largely used in alloy, but it is subject to the disadvantage of fluctuations in value owing to the limited number of mines. Silver and gold are pre-eminently the metals suitable for coinage. They possess all the qualities necessary in a currency material. These qualities, of course, they do not possess in a perfect degree; but they possess them in a higher degree than any other substances. They have great utility. They contain great value in small bulk and are readily portable. Except by the slow process of wear and tear they are practically indestructible. They are almost perfectly homogeneous after they have been reduced to uniform degrees of

fineness, which can be easily done, so that equal weights of them have practically equal values. They can be easily divided into the weights and fractions desired so as to express large values and small values. They have a very large degree of stability of value, not so much perhaps as wheat, but more than most articles which could be employed as money. And lastly, they are readily recognizable and cannot be easily counterfeited, and above all, are soft enough and yet hard enough to be coinable, "so that a portion, being once issued according to proper regulations with the impress of the state, may be known to all as good and legal currency equal in weight, size and value to all similarly marked currency."*

The precious metals are simply those commodities which experience has shown to be the most suitable for general money purposes. This, or that money article, may have this or that money quality in a higher degree than gold or silver, but taking them all in all, the precious metals have been found to be the most suitable. They have survived, not because of any prejudice in favor of the metals, but because they have shown themselves to be the fittest to survive.

*Jevons: Money and the Mechanism of Exchange, p. 40.

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